

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF030134	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/009039	International filing date (<i>day/month/year</i>) 12.08.2004	Priority date (<i>day/month/year</i>) 14.08.2003
International Patent Classification (IPC) or national classification and IPC H01L51/10, H01L27/15		
Applicant THOMSON LICENSING		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2.	This REPORT consists of a total of 6 sheets, including this cover sheet.	
3.	This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4.	This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009039

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-11 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-5 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/2-2/2 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009039

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-7</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	_____	YES
	Claims	<u>1-7</u>	NO
Industrial applicability (IA)	Claims	<u>1-7</u>	YES
	Claims	_____	NO
2. Citations and explanations (Rule 70.7)			
<p>The following communication refers to points I-VIII of the cover sheet, in which the corresponding boxes have been checked.</p>			
1. Reference is made to the following documents:			
D1 : US 2001/035713 A1 (KIMURA HAJIME) 1 November 2001 (2001-11-01)			
D2: US 2002/122642 A1 (KIJIMA YASUNORI) 5 September 2002 (2002-09-05)			
2. The amendments filed with the letter dated 14.07.2005 cause the subject matter of the application to be extended beyond the content of the application as filed. They are therefore contrary to the provisions of PCT Article 19(2). The amendments in question are as follows:			
2.1 There is no support, in the application as filed, for the subject matter of claim 2, since the passage mentioned by the agent refers to the distance between the input regions and the cells, and not the light-emitting layers.			

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009039

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
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- 2.2 The technical features of claim 5 have been removed from claim 4, which leads to an intermediate generalisation of the subject matter of claim 4 that is contrary to the provisions PCT Article 34(2)(b).
- 2.3. Consequently, claims 2 and 4 are not admissible.
3. The present application does not meet the requirements of PCT Article 33(3) because the subject matter of claim 1 (and claim 2, if it were admissible) does not involve an inventive step.
- 3.1. The subject matter of claim 1 only differs from the content of document D1 (see figures 4D and 5D in combination and the corresponding text; paragraph 64) in that the distance between the organic light-emitting layer and the extractor layer is less than 2 microns. Firstly, document D1 (see paragraph 64) already discloses that the extractor layer can be directly located on the passivation layer (511) and that the thickness of the electrode (510) is only of 0.3 microns (see paragraph 60). Even if no mention is made of the thickness of the passivation layer (511) (in this respect, it should be noted that, in the figure, the thickness of the layers 510 and 511 is substantially the same) reducing the thickness of organic light-emitting display (OLED) panels (and therefore the distance between the light-emitting layer and the extraction layer) is a permanent

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009039

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>objective for a person skilled in the art since it is one of the advantages of OLED panels (as opposed to LCD displays, for instance). It would therefore be obvious for a person skilled in the art to provide the smallest possible distance between the light-emitting layer and the extraction layer in the OLED panel disclosed in document D1, in particular a distance of less than 2 microns (this also applies to a distance of 1 micron: see claim 2, if it were admissible).</p> <p>3.2 The subject matter of claim 1 only differs from the content of document D2 (see figures 3-8 and the corresponding text), in that the distance between the organic light-emitting layer and the extractor layer is less than 2 microns. The above reasoning (see point 3.1 above) is all the more valid in view of the fact that, in document D2, the aim is to reduce as much as possible the roughness of the interface between the extractor layer and the OLED cells, and hence the distance from the OLED layer (this also applies to a thickness of 1 micron: see claim 2, if it were admissible).</p> <p>3.3. Consequently, the subject matter of claim 1 does not involve an inventive step.</p> <p>4. Dependent claims 3-7 do not contain any additional feature which, when combined with the subject matter of any of the claims to which they refer, might involve an inventive step (PCT Article 33</p>

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009039

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
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(3)), since they only describe design alternatives that are obvious to a person skilled in the art.

5. It would appear that what is attempted to be claimed in claim 5 is the shape of the extractor layer, which includes a narrower portion that forms the base, in direct engagement with the OLED cell, and widens (therefore forming the reflective surfaces) with the thickness to form a continuous outer surface serving as an encapsulation layer. Such a claim (which refers back to the current claim 1) should be clearly defined in order to meet the requirements of PCT Article 6.